**37th Annual Meeting, APS Division of Plasma Physics**
**6-10 November 1995—Louisville, KY**

## ABSTRACT SUBMITTAL FORM

Subject Classification Category _____ ☐ Theory ☒ Experiment

**Recirculating Heavy Ion Accelerator Experiment*** M.D. Cable, J.J. Barnard, D.A. Callahan, F.J. Deadrick, S. Eylon,[3] T.J. Fessenden,[1] A. Friedman, D.P. Grote, H.A. Hopkins,[4] D.L. Judd,[1] S.A. Hawkins, V.P. Karpenko, H.C. Kirbie, B.G. Logan, D.B. Longinotti,[2] S.M. Lund, L.A. Nattrass, M.B. Nelson, M.A. Newton, C.W. Ollis, T.C. Sangster, W.M. Sharp, C. Ward,[2] K.C. Wong, and S.S. Yu,[1] *Lawrence Livermore National Laboratory*—Because of their high efficiency, high repetition rate, and relatively simple target chamber geometries, heavy-ion accelerators are attractive candidates as drivers for inertial fusion energy power plants. Recirculating induction accelerators have been proposed as potential lower cost alternatives to linear induction machines. The introduction of bends and the higher repetition frequency of the induction core pulsers introduces new challenges. A program to develop a small (2m radius) scaled recirculator at LLNL is underway. The ion source, matching section and a short linear transport section have been constructed and characterized. A design for the half-lattice periods of the ring has been finalized. Results of measurements to date and an overall experimental program description will be presented.

*Work performed under the auspices of U.S. DOE by LLNL Contract W-7405-ENG-48 and by LBL Contract DE-AC03-76SF00098.

[1]Lawrence Berkeley Laboratory; [2]EG&G; [3]Titan-Beta, CA; [4]UC Berkeley.

☐ Prefer Poster Session
☐ Prefer Oral Session
☐ This poster/oral should be placed in the following
☐ grouping: (specify order)
_____
_____

☐ Special Facilities Requested (e.g., movie projector)
_____
_____

☐ Other Special Requests
_____
_____

Submitted by:

_____
(Signature of APS Member)

Michael D. Cable
(Same Name Typewritten)

Lawrence Livermore National Laboratory
P. O. Box 5508, L-472
Livermore, CA 94550
(Address)

**This form, or a computer generated form, plus TWO XEROX COPIES, must be received by Friday, 7 July 1995, at the following address:**

**Meetings Department • DPP 37th Annual Meeting**
**The American Physical Society**
**One Physics Ellipse**
**College Park, MD 20740-3844**
**phone: (301) 209-3286**